necessary to ensure that interference is not caused. The secondary status of these operations have also been removed. **While operation aboard aircraft is beneficial to emergency medical services, their secondary status should continue to ensure that interference is not created over wide geographic areas.**

low power usage. **This action, even though it is a reversal, is supported because it will allow mobile repeater stations to continue operating effectively on these channels.**

LOSS OF PROTECTION CRITERIA

54.) Co-channel and adjacent channel protection criteria have been completely removed except for two cases. Protection is provided to exclusive use overlay licensees for an absolute distance of 50 miles. Adjacent channel protection criteria have been dropped completely, except at 220 MHz. No information has been presented on the feasibility or impact of collocating equipment on adjacent (5 or 6.25 KHz) channels. While strict mileage separations are not the answer for either situation, the idea of protection for fixed stations should not be abandoned. If they could be abandoned, why do they remain (for up to 200 KHz) for certain frequencies in the 220 MHz band under §88.227?

RESTRICTED USE FREQUENCIES

55.) Proposed §88.673 would reserve 5 channel pairs in the range of 220/221.9025 - 220/221.9225 for emergency medical use. Although these channels may support small private organizations and provide relief in densely populated areas, they will provide limited relief (if any) to present EMRS eligibles in the commonwealth of Virginia. Implementation on these channels will be of little benefit to existing users of 155 MHz and MED channels, since it will result in the need for duplicate equipment. **A more suitable (and desirable)**

alternative would be to restrict the use of the "new" spectrum adjacent to the present EMRS allocations, and return the 220 MHz channels to some other group.

56.) Proposed §88.687 returns only four of the eight channel pairs which would be created by refarming MED channels 9 and 10. **Channels for the dispatch of independent agencies is one of the most critical needs in Virginia, and the other four channel pairs should be returned to current EMRS eligibles as well.**

57.) Proposed §88.691 also sets aside only <u>half</u> of the 32 channels derived from MED 1-8, specifically for present EMRS eligibles. This creates a problem not only in terms of the limited availability of channels, but the possibility of incompatible users on these new adjacent channels. **New channels in this spectrum should be available only to present EMRS eligibles.**

58.) Proposed §88.691 (c) would remove the present multi-channel requirements from the rules, rather than expand them. With the availability of radios with literally hundreds of available channels, the present requirement should be expanded to include all new MED channels. Present requirements which have been in place for mobiles and base stations for almost 20 years have had minimal cost impact, but have ensured the availability of alternate channels for immediate use. Failure to require all mobile radios to be capable of operating on all channels will diminish this

desirable capability. If all channels aren't required, where can the line be drawn? The present requirement of a full complement of MED channels in mobile radios has been successful in alleviating problems of compatibility with foreign units during multiple casualty incidents.

INNOVATIVE SHARED USE OPERATIONS

59.) It is interesting to note from a summary of allocations in the 150-174 MHz band[14] that of the 1,718 frequencies resulting from

MUTUAL AID OPERATIONS

61.) Proposed §88.1029(a) appears to allow public safety licensees to operate mobile units on the listed mutual aid channels, regardless of specific reference on their station authorization. **That section should also extend to the NPSPAC national mutual assistance channels as listed under §88.1029(d), since mobile radios on the public safety reserve channels are required to implement those channels.** The latter are listed as "available", while the former are "authorized." **In any event, mobile operations on mutual aid frequencies which are designated in a plan that has been submitted and approved should be exempt from coordination if their proposed use is consistent with that plan.**

PAGING OPERATIONS

62.) Proposed §88.1061 exempts all one way paging services from the spectrum efficiency and bandwidth reduction requirements. This exemption indicates the Commission's doubt of whether narrow band paging operations will be feasible within the foreseeable future. Since public safety agencies depend heavily on alert paging, how are they expected to continue reliable operation of their alert paging receivers?

63.) **Proposed §88.1063(a)(2) limits secondary alert paging to ambulance and rescue squad personnel, but should be expanded to include members of any emergency response team which acts to protect the safety of life or property (i.e. also fire departments,**

hazardous materials teams, search and rescue teams, special weapons

NOTES

1. - Code of Virginia, 1950 as amended, Title 32.1 - Health, Chapter 4 - Health Care Planning, Article 3 - Statewide Emergency Medical Care System, Section 32.1-112(A) which states in part "The Board shall have the authority and responsibility to develop a comprehensive, coordinated emergency medical care system in the Commonwealth and to prepare a Statewide Emergency Medical Services Plan which shall incorporate but not be limited to the plans prepared by the regional emergency medical services councils..."

2. - Code of Virginia, 1950 as amended, same as 1) above, section 32.1-112(A)(1) which states in part "To establish a comprehensive, statewide emergency care system which will incorporate .... communications ... and other components as integral parts of unified systems that will serve to improve the delivery of emergency medical services and thereby decrease high morbidity, hospitalization, disability and mortality."

3. - Based on present coordination fees from IMSA/IAFC of $150 each for 155.205 MHz, 155.280 MHz, 155.340 MHz, 155.400 MHz, and $225 for MED channels 1-10.

4. - SQL-NET from Oracle Corporation is an enhanced feature available for their Oracle database product which allows multiple relational databases (from multiple vendors) to be transparently linked and accessed as one logical database. The databases may be collocated, or accessed from multiple remote locations via data communications links. This software, and other similar products have been available for over five years.

5. - This movie is based on the book "Shoeless Joe" and centers around a farmer who ignores reason and plows under fertile farmland to build a baseball diamond because he hears a voice coming from the fields which says "If you build it, he will come."

6. - Crash Investigation Team Report No. 165, p3 (1989) Virginia Department of Motor Vehicles. This report was the result of an investigation into an accident involving an ambulance and a passenger vehicle. The accident resulted in two fatalities, three serious injuries, and one minor injury. The probable cause of the accident was related to the driver's attention being briefly diverted from the roadway while looking at the radio control head to verify proper frequency selection by another. (Adjusting the volume would be a similar activity since the driver may look away from the road to "find" the radio's volume control).

NOTES

7. - Report and Order PR Docket No. 91-72, 15 (1993). The frequencies 155.325, 155.340, 155.355, 155.385, and 155.400 MHz were reallocated to the EMRS upon its creation. Three of these frequencies are commonly used in Virginia for emergency medical communications between field personnel and the receiving hospital. The use of these frequencies should be restricted to that original intended purpose.

8. - Report and Order PR Docket No. 91-72, 16 (1993)

9. - Simulcasting is accomplished by operating multiple co-channel transmitters within a service area, all with high stability oscillators, and phase compensated modulating signals.

10. - Multi-casting uses multiple transmitters to cover a wide service area by employing a distinct carrier frequencies for each. This method alleviates the need for high stability oscillators and phase compensated signals, but still results in a complex system, and is not as spectrum efficient.

11. - See attached summary table I which was created using the information provided in proposed 88.1601. The earliest compliance date for each locality was determined, and that information used to determine the impact by the number of residents, localities, and land area impacted during each phase. Population figures represent 1990 figures from U.S. Census.

12. - Some centralized (automatic) trunked systems do not require a dedicated control channel, and should be easy to convert and made compatible with conventional (manually trunked) MED channel operations. Centralized trunked systems which utilize dedicated control channels should only be allowed on the MED channels when the control channels are implemented on frequencies outside of the common pool (MEDs 1A/B-10A/B), and where operations do not interfere with conventional communications.

13. - Based on computer analysis and summary of data on all land mobile licensees in Virginia, obtained from Communications Engineering Technology in October, 1992.

14. - The attached summary in table II (created by computer analysis of a listing the proposed high band VHF frequency allocations) shows channel allocations by service.

Table I

Impact of Proposed Compliance Dates

Commonwealth of Virginia

Date	Localities	Population	(in %)	Land Area	(in %)
2004	48	2,510,300	41.17%	11,842	29.83%
2006	22	1,722,800	28.26%	4,618	11.63%
2007	23	567,400	9.31%	8,836	22.26%
2008	8	300,200	4.92%	2,790	7.03%
2012	35	996,000	16.34%	11,614	29.25%
	136	6,096,700	100.0%	39,700	100.00%

Population reported reflects 1990 figures

Table II

(150 - 174 MHz)

Proposed High Band VHF Allocations After Refarming to 5 KHz Channels

139 frequencies will be assigned to the General Category

584 frequencies will be assigned to the Non-Commercial Category

518 frequencies will be assigned to the SMR Innovative Shared Category

477 frequencies will be assigned to the Public Safety Category